



**DRL-048
DRL-072
CROP SEEDER**

Operator's Manual



Rev. 8-2019

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INTRODUCTION

Thank you for purchasing your DRL Crop Seeder. The DRL- is designed to be used in prepared seeding conditions. It is not intended as a No-Till Drill. It is important to properly maintain and keep in place all safety guards and shields that came with your Machine.

These seeders can seed corn, beans, oats, wheat, etc. The two boxes are equipment with closeable slides for each row. The seeder is equipped with 2 separate boxes. Each is made with a stainless steel box and nylon/plastic seed rollers to disperse seeds effectively and accurately.

TECHNICAL SPECIFICATIONS

- Suitable for drilling and fertilizing corn, beans, oats, etc. in level or gently rolling fields.
- The double disc coulters create an opening to fertilize and seed easily in tilled soil.
- The depth of seeding can be adjusted. Seeding quantity can be adjusted.
- The seeder can plant seeds, fertilize, roll and drag all at the same time.

	<i>DRL-048</i>	<i>DRL-072</i>
<i>Weight</i>	569 lbs.	625 lbs.
<i>Req. HP</i>	Minimum 20 HP	Minimum 20 HP
<i>Seeding Rows</i>	7	10
<i>Row Spacing</i>	7"	7"
<i>Seed/Fertilizer Rate</i>	See Chart	See Chart
<i>Sowing Depth</i>	3/4" - 2"	3/4" - 2"

SAFETY

It is important that you read the entire manual and to become familiar with this product before you begin using it. This product is designed for certain applications only. The manufacturer cannot be responsible for issues arising from modification. We strongly recommend this product not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted us to determine if it can or should be performed on the product.

Read and understand this manual and all safety signs before operating and maintaining. Review the safety instructions and precautions annually.



SAFETY SIGNAL WORDS

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



THIS SYMBOL MEANS

**ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!**

Note the use of the signal words DANGER, WARNING and CAUTION with the safety messages. The appropriate signal word for each has been selected using the following guidelines:



DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.



WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



GENERAL SAFETY GUIDELINES

Safety of the operator is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or for you, follow them.

Replace any CAUTION, WARNING, DANGER or instruction safety decal that is not readable or is missing. Location of such decals are indicated in this booklet.

Do not attempt to operate this equipment under the influence of drugs or alcohol.

Review the safety instructions with all users annually.

This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operations. **Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.**

To prevent injury or death, use a tractor equipped with a Roll Over Protective System (ROPS). Do not paint over, remove or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice the instructions on them.

Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **DON'T TRY IT.**



SAFETY DECAL CARE

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replaced parts that displayed a safety sign should also display the current sign.
- Safety signs are available from your Distributor or Dealer Parts Department or the factory.

How to Install Safety Signs:

- Be sure that the installation area is clean and dry.
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.



BEFORE OPERATION

- Carefully study and understand this manual.
- Do not wear loose-fitting clothing, which may catch in moving parts.
- Always wear protective clothing and substantial shoes.
- Assure that all tires are inflated evenly.
- Give the unit a visual inspection for any loose bolts, worn parts or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.
- Be sure that there are no tools lying on or in the equipment.
- Do not use the unit until you are sure that the area is clear, especially of children and animals.

- Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with its operation before using.
- Use a tractor equipped with a Roll Over Protective System (ROPS) and fasten your seat belt prior to starting the engine.
- The manufacturer does not recommend usage of tractor with ROPS removed.
- Move tractor wheels to the widest recommended settings to increase stability.
- Securely attach to towing unit. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach safety chain.
- Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the equipment.



DURING OPERATION

- Children should not be allowed on the product.
- Clear the area of small children and bystanders before moving the feeder.
- If using a towing unit, securely attach feeder by using a hardened 3/4" pin, a metal retainer, and safety chains if required. Shift towing unit to a lower gear before going down steep downgrades, thus using the engine as a retarding force. Keep towing vehicle in gear at all times. Slow down for corners and rough terrain.
- Make sure you are in compliance with all local and state regulations regarding transporting equipment on public roads and highways. Lights and slow moving signs must be clean and visible by overtaking or oncoming traffic when feeder is transported.
- Beware of bystanders, **particularly children!** Always look around to make sure that it is safe to start the engine of the towing vehicle or move the unit. This is particularly important with higher noise levels and quiet cabs, as you may not hear people shouting.
- **NO PASSENGERS ALLOWED** - Do not carry passengers anywhere on, or in, the tractor or equipment, except as required for operation.
- Keep hands and clothing clear of moving parts.
- Do not clean, lubricate or adjust your equipment while it is moving.
- When halting operation, even periodically, set the tractor or towing vehicle brakes, disengage the PTO, shut off the engine and **remove the ignition key**.
- Be especially observant of the operating area and terrain - watch for holes, rocks or other hidden hazards. Always inspect the area prior to operation.

- **DO NOT** operate near the edge of drop-offs or banks.
- **DO NOT** operate on steep slopes as overturn may result.
- Operate up and down (not across) intermediate slopes. Avoid sudden starts and stops.



HIGHWAY AND TRANSPORT OPERATIONS

- Adopt safe driving practices:
- Keep the brake pedals latched together at all times. **NEVER USE INDEPENDENT BRAKING WITH MACHINE IN TOW AS LOSS OF CONTROL AND/OR UPSET OF UNIT CAN RESULT.**
- Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed to a minimum.
- Reduce speed prior to turns to avoid the risk of overturning.
- Avoid sudden uphill turns on steep slopes.
- Always keep the tractor or towing vehicle in gear to provide engine braking when going downhill. Do not coast.
- Do not drink and drive!
- Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- Use approved accessory lighting flags and necessary warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport. Various safety lights and devices are available from your dealer.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
- When driving the tractor and equipment on the road or highway under 40 kph (20 mph) at night or during the day, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem.
- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight as which you are operating.

- Watch for obstructions overhead and to the side while transporting.
- Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.
- Pick the most level route when transporting across fields. Avoid the edges of ditches or gullies and steep hillsides.
- Be extra careful when working on inclines.
- Maneuver the tractor or towing vehicle at safe speeds.
- Avoid overhead wires or other obstacles. Contact with overhead lines could cause serious injury or death.
- Avoid loose fill, rocks and holes; they can be dangerous for equipment operation or movement.
- Allow for unit length when making turns.
- Operate the towing vehicle from the operator's seat only.
- Never stand alongside of unit with engine running or attempt to start engine and/or operate machine while standing alongside of unit.
- Never leave running equipment attachments unattended.
- As a precaution, always recheck the hardware on equipment following every 100 hours of operation. Correct all problems. Follow the maintenance safety procedures.

ASSEMBLY

Step 1. Support frame a few feet above floor with blocks or a Tar River Implement handler.

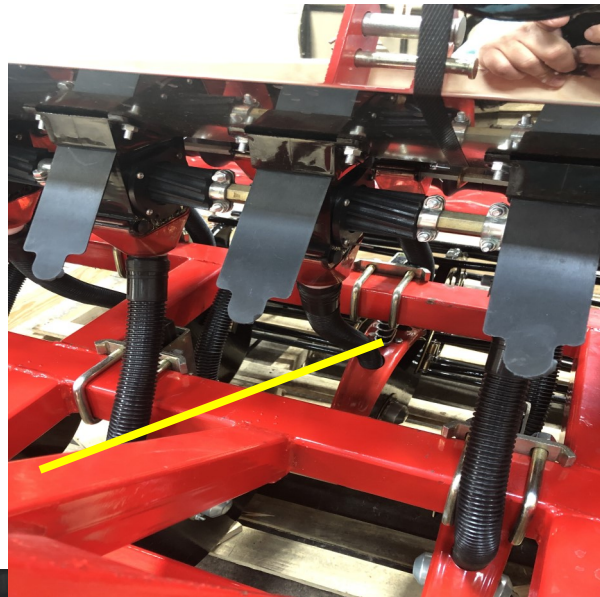
DRL-072

Align the double disc openers to the proper 7" spacing. It is easier to begin mounting the U bolts that hold the Double Disc Assembly on one end and align the next one on the same bar 14" beside it. The Double Disc Assemblies mounted on the back bar should begin between the front. There will be 5 on each bar.



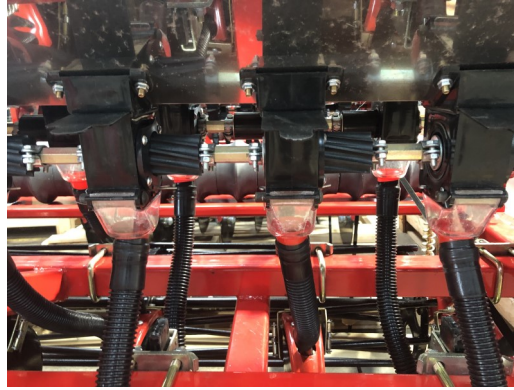
DRL-048

Align the center rear Double Disc opener of the machine using the 3pt. Support as a guide. Then slide the two front middle ones as far left and right as possible as in picture. Then use these to adjust the remaining 14" on center. There will be 4 on the front bar and 3 on the rear.



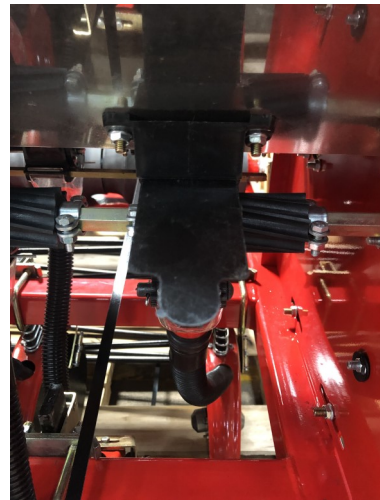
Step 2. Mount hopper box with the lid opening towards the front. **DO NOT TIGHTEN BOLTS AT THIS STEP**

Step 3. Separate the hoses which come with the machine. The 5 longer hoses are to be installed from the front seed cups to the rear double disc openers.



Step 4. Use electrical tape (not provided) to secure the hoses to the seed cups.

Step 5. Insert the shut off flaps into each of the seed cups.



Step 6. Install cage roller on both roller arms. Ensure grease fitting is to the outside. Secure in place with nuts and cotter pins.



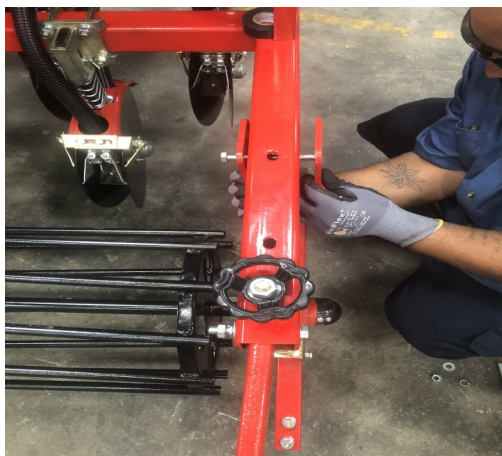
Step 7. Attach the packer wheel arm.



Step 8. Attach and install the roller Adjustment rod .



Step 9. Install Roller Support Plates WITH FRONT BOLTS ONLY. THE BACK BOLTS ARE INSTALLED AFTER THE CHAIN GUARDS ARE INSTALLED.



Step 10. Install Chains



Step 11. Lightly push seed box forward to tighten the chain.. Use allen wrench to tighten the drive sprocket after ensuring the chain is straight. Install chain shield.



Step 12 Install back Bracket bolt left out during roller assembly.



Step. 12 Install Step Board



Step 13. Attach Spring-loaded Scraperboard



Step 14. Install Packer Wheel Assembly



Step 15. Install the tension spring.



Step 16. Turn the handle to the outside.

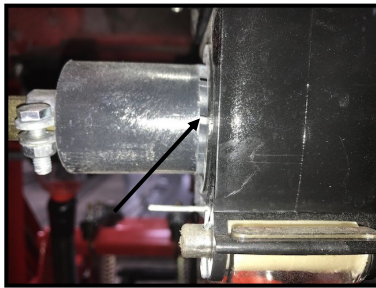


OPERATING INSTRUCTIONS

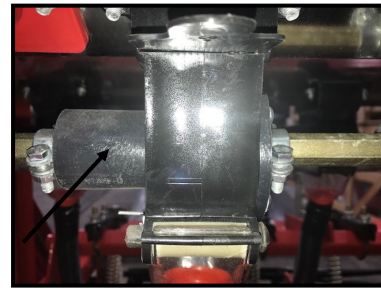
The DRL Seeder is a primary seeder intended to be used in prepared ground.

BEFORE BEGINNING

- Be sure all the seed cups completely close and open the same, so all cups are putting out the exact amount of seed. If they are not in sync, one cup will put out more than others.
- Ensure when completely closed, the seeding grooved are not protruding from the outside the cup.

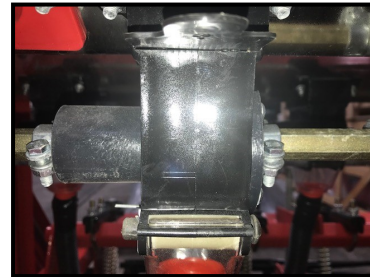


NOT FLUSH - GEARS PROTURDING



FLUSH - GEARS NOT PROTURDING

- Adjust the clamps to ensure all cups close and open completely and uniformly.



TO ADJUST SEED OUTPUT

The Seed cups on the DRL may come with either of two different style of seed cups or a combination of both. Typically the front Seedbox section is equipped with a “LARGE SEED CUP and the rear section typically has the LEGUME SEED BOX.



LARGE SEED CUP

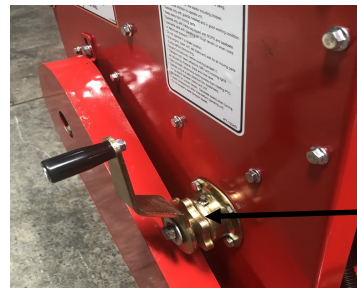
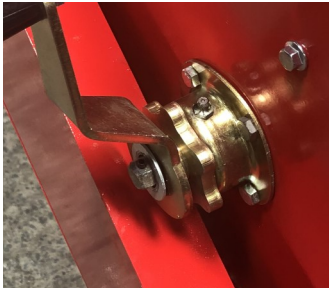


LEGUME SEED CUP

The LARGE SEED front section is usually driven with an 11-26 Gear ratio, while the back LEGUME SEED section is being reduced to put out less with a 12-40 Gear Ratio.

SEEDING/FERTILIZING RATE ADJUSTMENT HANDLE

To adjust the fertilizer rate, you will need to adjust hand wheels (on each side of hopper). The seed/fertilize rate depends on the seed/fertilizer you want to plant, please refer to your seed/fertilizer supplier's chart to get the proper seed/fertilize rate.



LOCKING NUT

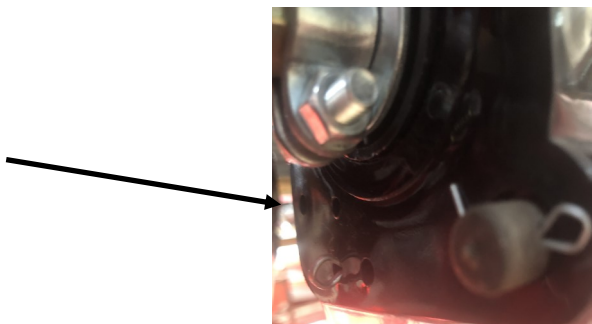
Before adjusting the seed rate, return the rate to zero by rotating the hand wheel, then check and make sure all seeding/fertilizing wheels are fully closed on all seeding/fertilizing boxes. (SEE BEFORE BEGINNING section) If not, you need to loosen the clips on both sides of the seeding/fertilizing wheel and push the wheel into the box. Tighten the clips. When the seeding/fertilizing box is closed and the meter indicates "0". Adjust fertilizing rate by rotating the hand wheel. The meter has 8 numbers from 0-8, from zero to Maximum.

Tighten locking nut on handle assembly before running

Weight, size, relative humidity, and moisture content can affect seeding rates.

Users can adjust the position of the seed/fertilizer TONGUE and lock in different positions by moving the cotter pin to meet the different seeding/fertilizing size..

The smaller the seed, the higher up the TONGUE should be positioned. For larger seed, the TONGUE should be opened more.



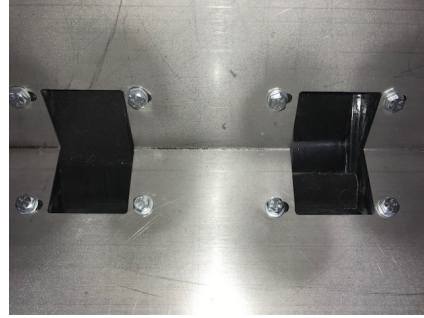
SEED CUP SHUTOFF

Depending on the crop being planted, it may be necessary to not disburse from all of the seed cups. This is easily done by simply sliding the SEED SHUT OFF FLAP in an out. In shuts it off, out opens it up.



CLOSED

OPEN



CLOSED

OPEN

SEED CHARTS

Large seed cup

11- 26 Gear Ratio

Cup Setting	1	2	3	4	5	6	7	8
<i>Rye</i>	—	72	95	118	148	178	—	—
<i>Fescue</i>	—	44	79	114	138	162	—	—
<i>Wheat</i>	—	105	146	187	227	267	—	—
<i>Corn</i>	—	76	155	234	290	346	—	—
<i>Gran. Fertilizer</i>	55	133	183	233	268	304	—	—

12- 40 Gear Ratio

Cup Setting	1	2	3	4	5	6	7	8
<i>Rye</i>	—	51	67	83	104	125	147	169
<i>Fescue</i>	—	31	56	80	97	114	132	151
<i>Wheat</i>	—	74	103	132	160	188	218	250
<i>Corn</i>	—	54	109	165	205	245	285	325
<i>Gran. Fertilizer</i>	40	94	129	165	190	215	242	269

Legume seed cup

11- 26 Gear Ratio

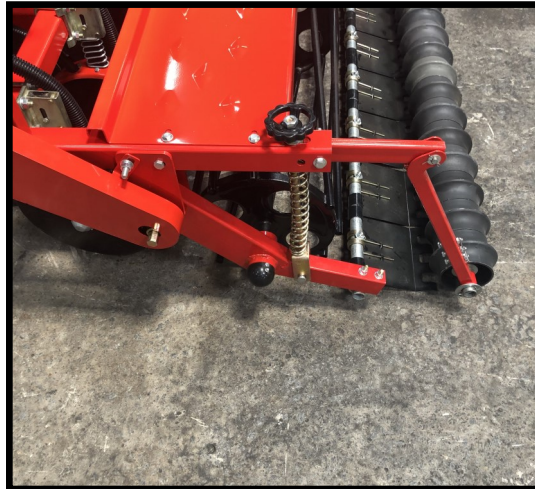
Cup Setting	1	2	3	4	5	6	7	8
<i>Rye</i>	—	35	54	73	90	106	—	—
<i>Fescue</i>	—	31	47	64	80	96	—	—
<i>Wheat</i>	—	—	—	—	—	—	—	—
<i>Centipede</i>	15	71	91	111	138	166	—	—
<i>Gran. Fertilizer</i>	—	—	—	—	—	—	—	—

12- 40 Gear Ratio

Cup Setting	1	2	3	4	5	6	7	8
<i>Rye</i>	—	25	38	51	64	75	—	—
<i>Fescue</i>	—	22	33	45	57	68	—	—
<i>Wheat</i>	—	—	—	—	—	—	—	—
<i>Centipede</i>	11	50	64	78	98	117	—	—
<i>Gran. Fertilizer</i>	—	—	—	—	—	—	—	—

SEED DEPTH

The depth in which the application is done is controlled by adjusting the basket located near the rear of the machine. Adjusting the Sowing Depth Control Device as follows:



Turning knob clockwise will make the basket drop which in turn will raise the disc openers and lessen the depth of the application. Turning knob counterclockwise would raise the basket which would lower the disc openers and make the application deeper.

The top link on the tractor hitch should be properly adjusted to carry the machine level in an

operating position. During operation the tractor lift must be fully lowered to allow the machine to follow the contour of the ground.

The machine is totally ground driven so proceed with a speed that is most comfortable and safe for existing conditions. Be sure to stop forward motion before lifting machine off ground. This practice will stop rollers from 'free spinning' and therefore eliminate the unwanted application when turning around.

Never operate the machine in reverse.

LUBRICATION AND MAINTENANCE

IMPORTANT: It is important to thoroughly clean the seeder after use. Failure to do so, can cause irreparable damage to the seedcups and drive system.

Grease and turn the Seed adjustment handle to ensure grease lubricates the threads.

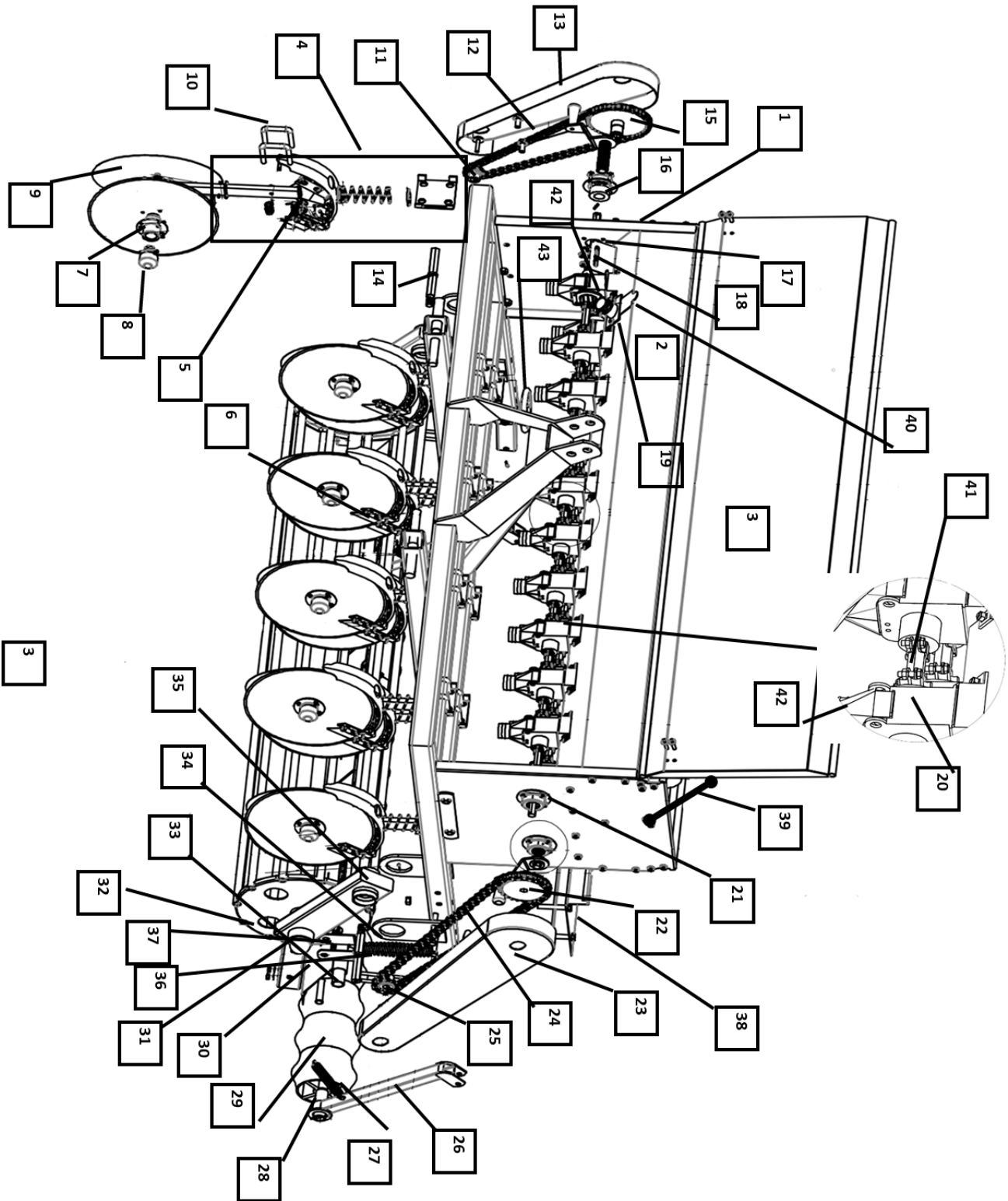
1 Hour Check all fasteners and hardware including set screws in sprockets and bearing collars and retighten as necessary.

8 Hours Grease bearings on roller.

As needed: Remove any crop residue, grasses, weeds, or debris wrapped around shafts discs or rollers. This can cause bearings to overheat and lead to premature failure.

Always: Protect machine from weather. Never leave fertilizer in hopper. Do not leave seed in hopper for more than 24 hours. Remove all fertilizer and seeds and thoroughly clean hoppers and lubricate all drive chains before storage.

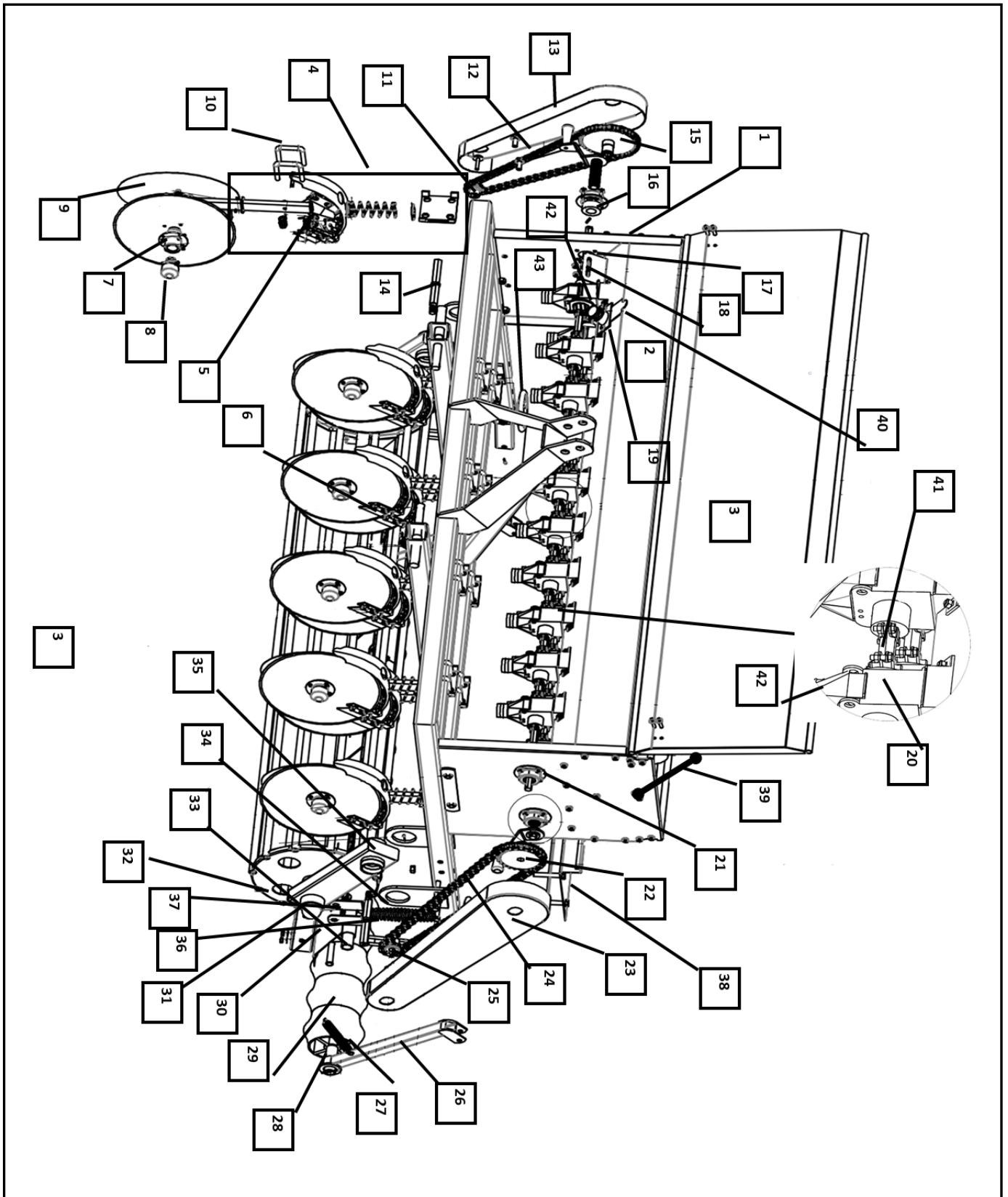
Crop Seeder DRL-048 & DRL-072



Crop Seeder DRL-048 & DRL-072

Item	Part #	Description
1	DL4001-48	Main Frame - DRL-048
	DL4001-72	Main Frame - DRL-072
2	DL1003-48	Hopper Complete - DRL-048
	DL1003-72	Hopper Complete - DRL-072
3	DL1001-48	Hopper Lid - DRL-048
	DL1001-72	Hopper Lid - DRL-072
4	DL6008	Disc Assembly
5	DL6007	External Sraper Kit
6	DL6006	Internal Scraper Kit
7	DL6009	Bearing Assembly Disc
8	DL6003	Bearing Cap
9	DL6004	Disc
10	DL6002	U Bolt
11	DL3005A	Sprocket 12
12	DL3004A	Chain Rear Hopper - 11/26 Sprocket
	DL3004B	Chain Rear Hopper - 12/40 Sprocket
13	DL10004	Left Chain Cover
14	DL8005	Small Sprocket Shaft
15	DL2003	Sprocket Z40
16	DL2005	Handle
17	DL7004	Distribution Face Plate
18	DL7005	Pointer
19	DL1006	Cleanout spout
20	DL7001-L	Seed Cups - Large Seed
20	DL7001-S	Seed Cups - Small Seed
21	DL1005	Bearing Assy Drive Shaft
22	DL2006	Sprocket Z26
23	DL10005	Right Chain Cover
	DL3003	Chain Front Hopper - 11/26 Sprocket
25	DL5005B	Sprocket 11
26	DL4002	Packer Arm
27	DL11001	Packer Spring
28	DL9007-48	Packer Wheel Shaft - DRL-048
	DL9007-72	Packer Wheel Shaft - DRL-072
29	DL9001	Packer Wheel Section
30	DL11011	Spring-loaded Scraperboard Assembly
31	DL10012	Roller Dust Cap
32	DL9001-48	Drive Roller - DRL-048
	DL9001-72	Drive Roller - DRL-072
33	DL9006-48	Scraperboard Rod - DRL-048
	DL9006-72	Scraperboard Rod - DRL-072

Crop Seeder DRL-048 & DRL-072



Crop Seeder DRL-048 & DRL-072

Item	Part #	Description
34	DL8003	Bracket - Roller Arm
35	DL8008	Roller Arm
36	DL8004	Spring - Roller
37	DL8002	Adjustment Rod - Roller
38	DL10001-48	Stepboard - DRL-048
	DL10001-72	Stepboard - DRL-072
39	DL5003	Lid Piston
40	DL7007	Seedcup Shutoff Flap
41	DL7000-48	Hex Seed Box Shaft - DRL-048
	DL7000-72	Hex Seed Box Shaft - DRL-072
42	DL7002	Seedcup Funnel
43	DL8001	Adjustment Wheel
		Hose - Longest

LIMITED WARRANTY

Tar River Equipment Division, LLC warrants to the original purchaser of any new Tar River, Inc equipment, purchased from an authorized Tar River, Inc dealer, that the equipment be free from defects in material and workmanship for a period of one (1) year for non-commercial, state, and municipalities' use, ninety (90) days for commercial use from date of retail sale. Warranty for rental purposes is thirty (30) days. The obligation of Tar River Equipment Division, LLC to the purchaser under this warranty is limited to the repair or replacement of defective parts.

Replacement or repair parts installed in the equipment covered by this limited warranty are warranted for ninety (90) days from the date of purchase of such part or to the expiration of the applicable new equipment warranty period, whichever occurs later. Warranted parts shall be provided at no cost to the user at an authorized Tar River Equipment Division, LLC dealer during regular working hours. Tar River Equipment Division, LLC reserves the right to inspect any equipment or parts, which are claimed to have been defective in material or workmanship.

This limited warranty does not apply to and excludes wear items such as shear pins, tires, tubes knives, blades or other wear items. Oil or grease is not covered by this warranty.

All obligations of Tar River Equipment Division, LLC under this limited warranty shall be terminated if:

- Proper service is not preformed on the machine
- The machine is modified or altered in any way
- The machine is being used or has been used for purposes other than those for which the machine was intended

DISCLAIMER OF IMPLIED WARRANTIES & CONSEQUENTIAL DAMAGES

Tar River Equipment Division, LLC obligation under this limited warranty, to the extent allowed by law, is in lieu of all warranties, implied or expressed, including implied warranties of merchantability and fitness for a particular purpose and any liability for incidental and consequential damages with respect to the sale or use of the items warranted. Such incidental and consequential damages shall include but not be limited to: transportation charges other than normal freight charges; cost of installation other than cost approved by Tar River Equipment Division, LLC; duty; taxes; charges for normal service or adjustment; loss of crops or any other loss of income; rental of substitute equipment, expenses due to loss, damage, detention or delay in the delivery.